A NEW SPECIES OF *JANETSCHEKBRYA* FROM COSTA RICA (COLLEMBOLA: ENTOMOBRYIDAE)[1]

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ABSTRACT: A new species, *Janetschekbrya matthewsi* Snider, is described from Costa Rica. This is the first record of the genus for Central America. The species may be allied with *J. arida* Christiansen and Bellinger, but can be separated on the basis of color pattern, labral papillae, claw and dorsal chaetotaxy. The type locality is Llorona, Parque Nacionale Corcovado, collected from the nests of *Microstigmus* sp. (Sphecidae).

Recently, a colleague, Dr. Robert W. Matthews, collected the nests of sphecid wasps in Costa Rica. Among the prey stored in them, as larval food, were six species of Collembola. Included in the samples was a new species of *Janetschekbrya*. This constitutes a new record for the genus in Central America. The type and paratype series will be deposited in the Entomology Museum, Michigan State University.

***Janetschekbrya matthewsi*, n. sp.**

Color and pattern. Background pale yellow to cream. Purple pigment as follows: first antennal segment without purple pigment, segments two to four with light dusting, distally each segment darker; posterio-lateral edge of abdominal segment III sometimes with a small, single macula of pigment on each side; abdominal segment V with a single macule of pigment on anterio-lateral margin; legs and furcula light yellow, without purple markings (Figs. 1 and 2).

Antennae. Longer than head; ratio of segments as 1 : 2 : 2 : 3 (Fig. 3); apical bulb of segment IV in a distinct pit, completely apical (Fig. 4), protective papillae absent; segment III with an apical pair of curved sensory papillae contained in shallow folds (Fig. 5); segment II with two to three outstanding setae located at midpoint of segment (Fig. 6), all other setae normal.

Head. Eyes 8 + 8 with dark pigment, ocellus H half the diameter of C (Fig. 7); mandible with molar plate and apical teeth; four spheroid labral papillae (Fig. 8); labial appendages normal (Fig. 9).

Body. Unguis curving, lanceolate, with a pair of lateral teeth, two small distal inner teeth, and basal outer tooth (Figs. 10 and 11); unguiculus obliquely truncate, untoothed, inner corner strongly pointed (Fig. 12); tenent hair longer than inner edge of unguis; pretarsi lack setulae. Trochanteral organ variable, usually with five apical setae, posterior external and internal setae variable (Fig. 13). Corpus of retinaculum with a single heavy seta, rami quadridentate (Fig. 14). Furcula reaching the ventral tube, manubrium to dens ratio 1:1.5; manubrium without ventral scales; dens normal, with ventral scales, with dorsal crenulations; mucro with

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anteapical tooth erect, basal spine strong, not reaching apex of anteapical tooth; distal ventral seta of dens reaching apex of mucro (Fig. 15).

Clothing. Head and trunk with hyaline, serrated scales three times as long as wide (Fig. 16). Body setae of type I, II, III, IV and V (Christiansen, 1958) (Fig. 17). Macrosetal pattern of abdominal segments III and IV as illustrated (Fig. 18). The specimens examined from the samples were in poor condition. They had been tightly packed into the burrows by the wasps, and lost much of their setae and scales when placed in collection fluid. At this time it is impractical to figure the entire setal configuration.

Remarks

According to Christiansen and Bellinger (in press), *Janetschekbrya* was erected by Yosii (1971) to include two species from the Himalayas. While the single Nearctic species, *J. arida* Christiansen and Bellinger (in press) shares similar morphological characters to Yosii's species, it differs by having scales ciliated for 1/5 to 1/3 their lengths. The Himalayan species on the other hand, are ciliated for most of their lengths. Further, *arida* exhibits a chaetotaxy very different from Yosii's description.

Here, *matthewsi* differs from *arida* in the following respects: labral papillae spheriod, not rectangular; external differentiated seta of the labial appendage normally tapered and curved instead of thicker than normal; unguis lacks lateral tooth; unguiculus without external ciliations, and is obliquely truncate, not lanceolate; chaetotaxy of third abdominal segment appears very different between the two species; and finally the restricted pigmentation of *matthewsi*.

While *matthewsi* does not exactly fit the genus as described by Yosii, I agree with Christiansen and Bellinger that the species can be placed in *Janetschekbrya* on the basis of scale form. Until additional species are discovered, it is desirable not to erect a new genus.

The specimens were taken as prey from the nests of *Microstigmus* sp. (Sphecidae) located in an uncut lowland forest. Collection record: Costa Rica, Puntaremas Province, Parque Nacional Corcovado, Peninsula de Osa, Llorona, January 4 - 13, 1980, R. W. and J. R. Matthews, collectors. One type on slide, five paratypes on slides, and 86 paratypes in alcohol.

LITERATURE CITED

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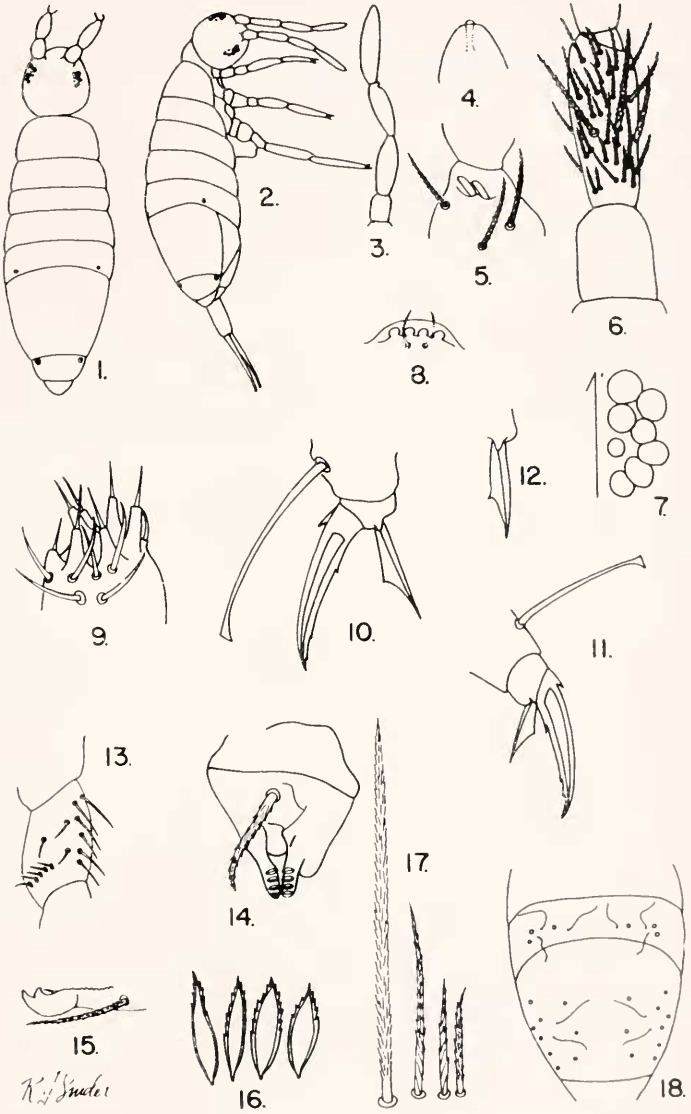

Figs. 1 - 18. *Janetschekbrya matthewsi* sp. Fig. 1 Dorsal view, 2. Lateral view (holotype), 3. Antennal segments, 4. Apical bulb of Ant. IV, 5. Sensory papillae of Ant. III, 6. Segment II of antenna, 7. Ocelli of right side, 8. Labral papillae (holotype), 9. Right labial appendage (holotype), 10. Claw of third leg (holotype), 1'. Claw of first leg, 12. Unguiculus of second leg, 13. Trochanter of third leg (holotype), 14. Retinaculum, 15. Mucro, 16. Scales, 17. Body setae, 18. Macrochaetotaxy of Abd. III and IV.